Observations on breeding Indian Skimmers Rynchops albicollis in the National Chambal Sanctuary, Uttar Pradesh, India

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The Indian Skimmer Rynchops albicollis is confined to the large rivers of Pakistan, India, Bangladesh, Myanmar, and Indochina (Cambodia, Laos and Vietnam). It is a rare visitor in Nepal, and was previously recorded from China (BirdLife International 2001). Small numbers are present in Pakistan, only three recent localities are known in Myanmar, and the species is, in effect, extinct in the Mekong delta (BirdLife International 2001, J. W. Duckworth in litt. 2003). India is now clearly the most important country in the world for the conservation of the species. The Indian Skimmer is currently considered Vulnerable because it has a small population (estimated to number less than 10,000 individuals) which is declining by >30% in 10 years (BirdLife International 2004). It is one of the least studied birds in India, with much of the information available on its ecology and habits being anecdotal and descriptive (Ali and Ripley 1969, BirdLife International 2001).

I visited the National Chambal Sanctuary (NCS) in Etawah district, Uttar Pradesh, India between December 1999 and February 2002 and made several observations of skimmers. I also conducted a census for waterbirds by boat (travelling at c.20 km/h) between 27 January and 5 February 2002 along the entire 180 km stretch of the Uttar Pradesh portion of the sanctuary. Here I present the results of the surveys and describe some observations on breeding behaviour of Indian Skimmers.

RESULTS AND DISCUSSION

Abundance

Numbers of skimmers counted during the census in river sections between major villages are given in Table 1. A total of 341 skimmers were counted during the five-day survey. The highest numbers were between Bareh and Panchnada, with Nandgaon to Hathkaanth Ghat being the second most important section. From visits on other dates, it was apparent that the skimmers were resident, with large flocks being present throughout the year. Sharma and Singh (1989) recorded 155 individuals in NCS (not 555 as reported by BirdLife International 2001, citing Sharma *et al.* 1995), but it is not known whether these were likely to be different individuals.

Observations on breeding

Indian Skimmers were seen nesting in a colony on a large island in the Chambal river near Bareh town (26°31.84′N 79°8.26′E). On 23 May 2000, a total of 45–50 skimmer nests were found on the island and were counted, with several others reported by sanctu-

ary staff to be foraging upstream. The skimmers nested along with Little Terns *Sterna albifrons* and Small Pratincoles *Glareola lactea*. Nests of the three species were not interspersed, but instead formed distinct clumps, with only an occasional nest of one species found in the nesting 'clump' of another, as previously described by Baker (1922–1930). In addition to this colony, two pairs of skimmers were seen nesting on a small (<1 ha) island, and another pair was seen nesting on a small (c.20x40 m) sand-bar.

The skimmer nests were mere scoops in the sand, with eggs laid directly on the sand, as is typical for the species (Zusi 1996). Nests were spaced irregularly, at least 10 cm apart. While most nests were on high and dry parts of the island, three nests were located close to the water where the sand was wet. When incubating adults were approached, they initially attempted to conceal themselves by lying low on the sand and resting their beaks on the sand, only taking flight when approached closely. Most eggs had hatched when the island was revisited on 3 June 2000, but since the nests and adults were not marked it was not possible to document the fate of individual nests. Of 27 nests in which entire clutches had hatched, 16 had one chick, eight had two and three had three chicks. Young chicks initially responded to my approach by quiet cheeping, and then by lying flat on the sand, or burying themselves using back-and-forth and side-to-side movements of their wings, leaving only the head exposed. Even chicks which had reached about half the

Table 1. Number of Indian Skimmers recorded during January–February 2002 in the National Chambal Sanctuary, Uttar Pradesh, India.

River section (each c.20 km long)	Date	No. of individuals
Rihan to Pinahat	5 Feb	0
Pinahat to Jevra Ghat	4 Feb	18
Jevra Ghat to Gudah	4 Feb	8
Gudah to Nandgaon	4 Feb	0
Nandgaon to Hathkaanth Ghat	25 Jan	80
Hathkaanth Ghat to Nakhlauli Ghat	25 Jan	0
Nakhlauli Ghat to Korath Ghat	25 Jan	0
Korath Ghat to Pachai Gaon	25 Jan	6
Pachai Gaon to Udi bridge	25 Jan	2
Udi bridge to Kasauvva	26 Jan	6
Kasauvva to Sehson Ghat	26 Jan	49
Sehson Ghat to Mahua Sunda	26 Jan	7
Mahua Sunda to Bareh	27 Jan	0
Bareh to Panchnada	27 Jan	165
Total		341

size of adults made no attempt to run away when approached. By contrast, the chicks of African Skimmers *Rynchops flavirostris* are described to 'run from the scrape, flatten out on the sand and remain still' in response to danger (Coppinger *et al.* 1988).

Threats and disturbance

During the June visit, the river had dried considerably and the large island with the skimmer colony had become connected to one of the banks by a sandbank. Goats and cattle had grazed on the island, and may have trampled over eggs and chicks. Dogs were seen to eat nestlings, and possibly eggs. One chick was found bleeding on the head from a cut, perhaps caused by either trampling or a bite. The damming of the river Chambal upstream in Rajasthan, and an irrigation project, have led to markedly lower levels of water during the dry season in recent years, causing the river to dry up completely in parts. This reduces the availability of islands for skimmers, or makes the islands more accessible from the banks. In 2001, the water level was very low during the nesting season and no skimmer nests were found in the NCS (NCS forest staff verbally 2003). Disturbance from planned development such as proposed railway and road bridges, and increased removal of water for irrigation further threatens skimmer habitat in the area. It is crucially important that deep water and river flow is maintained, so that suitable nesting islands remain isolated by water throughout the breeding season. These issues need addressing if the species is to be conserved effectively in the sanctuary.

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First record of Christmas Island Frigatebird Fregata andrewsi for Timor-Leste (East Timor)

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There are only three acceptable records of the Critically Endangered Christmas Island Frigatebird *Fregata andrewsi* for Wallacea, all from the Lesser Sunda islands of Lombok, Semau (off Timor) and West Timor (McKean 1987, Johnstone *et al.* 1993, Coates and Bishop 1997, BirdLife International 2001). Here I describe the first record for the new nation of Timor-Leste (East Timor).

At 15h30 on 1 March 2003, four frigatebirds were observed in flight over the Dili harbour area. The birds were observed from a distance of 40–50 m without the aid of binoculars and were not identified. During a prolonged period of strong wind (c.40–50 km/h) they

continued to fly over beach-front habitat near the Hotel Tourismo, heading towards Cape Cristo Rei (8°31′26″S 125°36′33″E), 5 km north-east of Dili.

I collected my binoculars and took a taxi to Cristo Rei beach. Between 16h30 and 17h15 a total of 17 frigatebirds were observed as they soared, singly, in pairs and a party of five, towards the cape, where they gathered in a loose group before soaring east along the coast at c.17h30. One pair of birds soaring about 60 m directly above my head included an all-black male Great Frigatebird *Fregata minor*, together with a male Christmas Island Frigatebird. The latter was identified by its dark (perhaps black) bill, black neck, chest, upper